

(No Model.)

F. M. IRONMONGER.

DRYING MACHINE.

No. 305,596.

Patented Sept. 23, 1884.

Fig. 2.

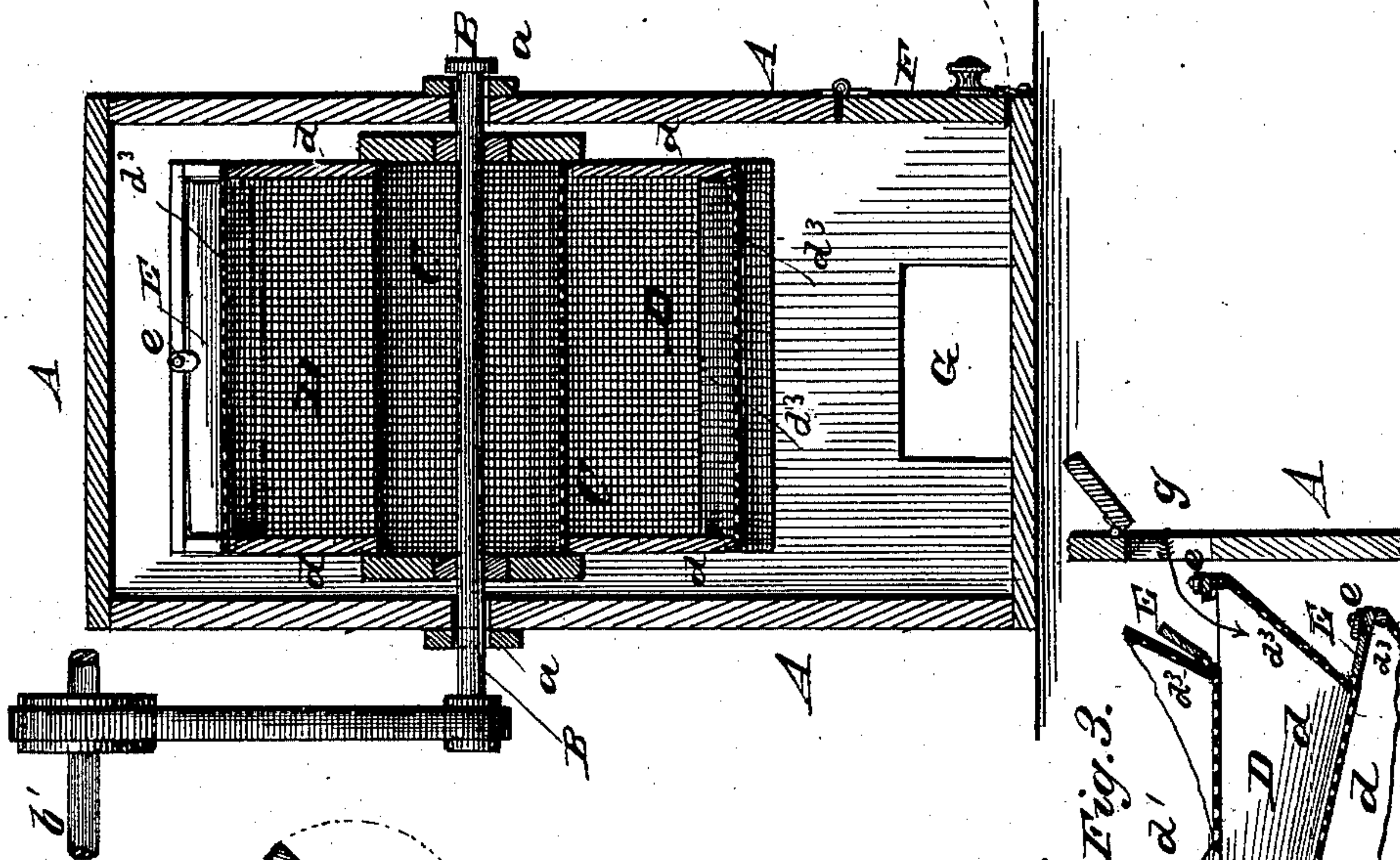


Fig. 1.

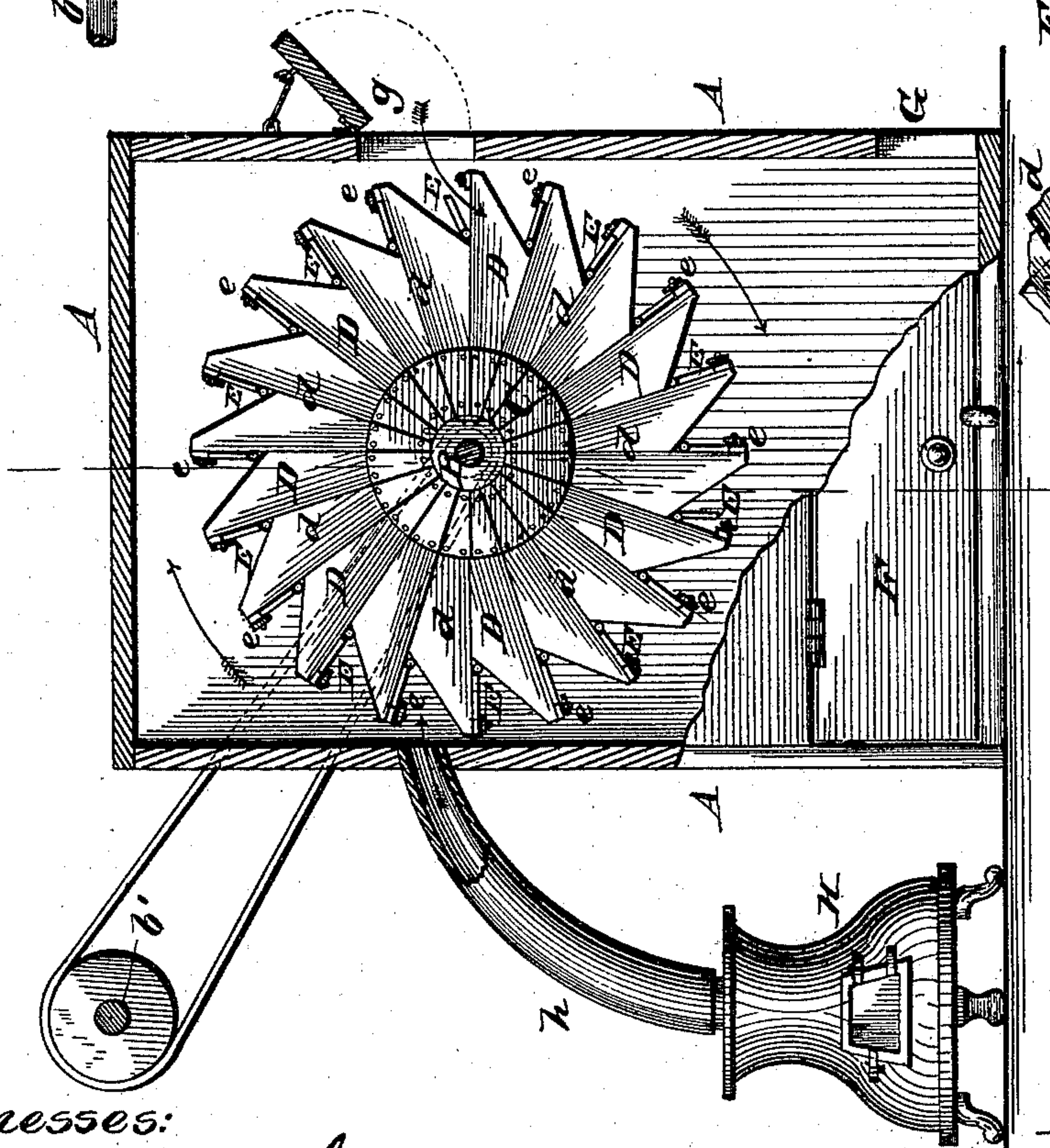
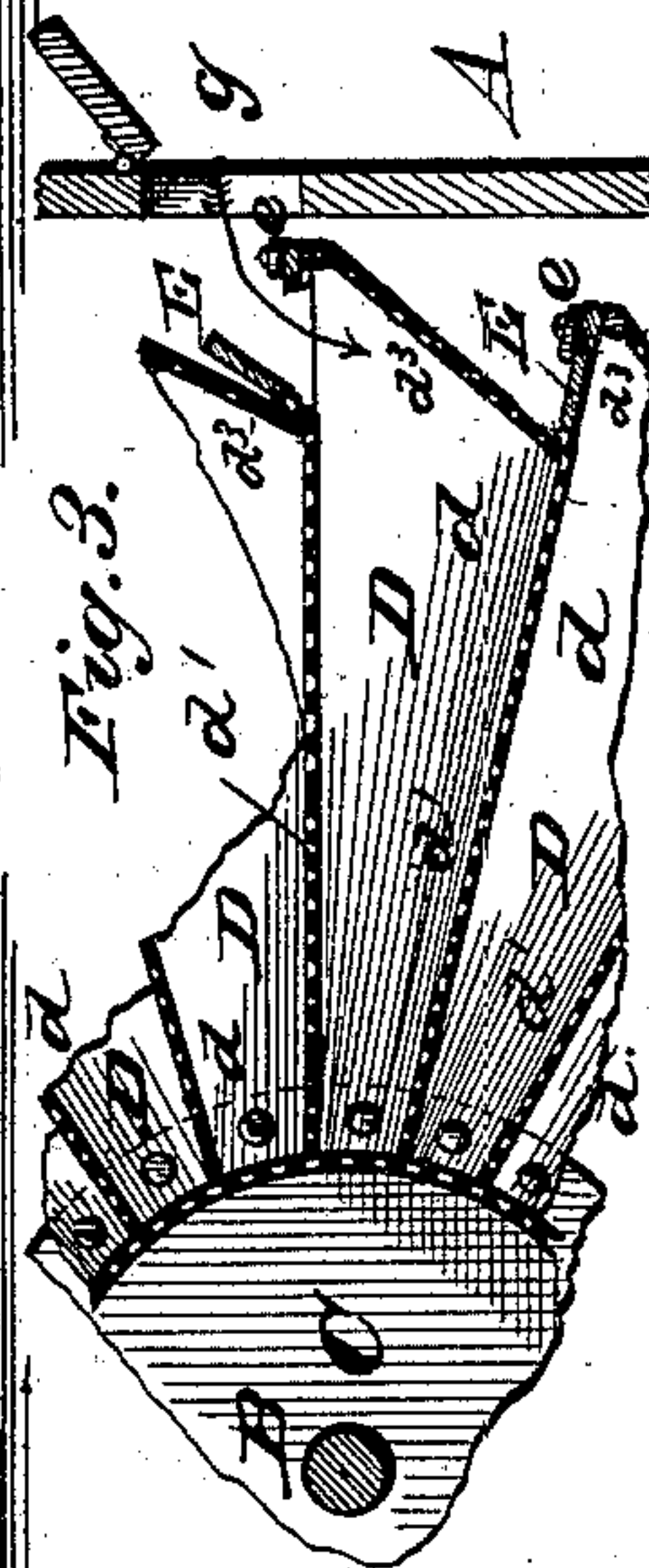


Fig. 3.



Witnesses:

Phil. C. Dierich
J. M. Cleary

Inventor:

F. M. Ironmonger
by:
Goulet & Co
Attorneys.

UNITED STATES PATENT OFFICE.

FRANCIS M. IRONMONGER, OF BROOKLYN, NEW YORK.

DRYING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 305,596, dated September 23, 1884.

Application filed December 5, 1883. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS M. IRONMONGER, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Drying-Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to drying-machines, the object being to provide an inexpensive machine adapted, primarily, for use in the drying of wet nuts, fruit, and other small products.

The invention consists in the combination, with a furnace or other source of heat, of a revolving drying-wheel of peculiar construction, as hereinafter fully described.

In the drawings, Figure 1 represents a transverse vertical section of a machine constructed in accordance with my invention. Fig. 2 is a longitudinal section of the same. Fig. 3 is a sectional view illustrating the form of the chambers D.

A represents a box or casing, within which is arranged, in bearings *a a*, a transverse shaft, B. Upon the shaft is rigidly mounted a drum or cylinder, C, of wire-netting, whose ends are preferably of wood.

D D represent a series of counterpart drying chambers or compartments formed of wooden sides *d d*, covered with wire-netting *d'*, which forms the division-walls between the various compartments, and also covers the inclined peripheral portions *d''* of the chambers, to permit of the escape of moisture from the same. These chambers D are radially arranged with relation to the drum C, and are formed at their outer ends with doors E E. These doors are secured by buttons *e e* or other means.

The lower portion of the box A is provided with a door, F, through which the nuts are removed when dried. Said box is also formed with an opening, G, near its bottom, to allow of the escape of damp air from the box, and with a feed-opening, *g*.

H represents a furnace or other suitable source of heat, connected by a flue or pipe, *h*, with the box A, as shown, in such manner as to supply heat to the revolving drying device containing the nuts.

The shaft B may be revolved by any preferred means; but I have here shown it provided with an endless band passing around a power-shaft, *b'*.

The operation of my improved machine will be readily understood. The compartments D are partly filled with the nuts or fruit, and the shaft B is slowly revolved—say five or ten revolutions per minute—thus carrying the drum and drying-chambers, and thoroughly agitating the product being dried. In this way an even and uniform drying is effected, as the whole contents of the chambers D are equally exposed to the action of the heat. The moisture escapes through the wire-netting which connects the sides *d* and forms the chambers D.

By the employment of the drums hereinbefore described, the contents of the drier are subjected to heat from both within and without. The nuts rest on the outer surface of the drum, and the heat reaches them from within the drum as well as through the netting of the chambers D, thus materially facilitating the drying process.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a drying-machine, the combination, with a box or casing, of a revolving shaft, a drum, C, of wire-netting mounted thereon, and radially-arranged drying-chambers supported upon said drum, substantially as set forth.

2. In a drying-machine, the combination, with a box or casing and a furnace or other source of heat, of a transverse shaft, a drum, C, of wire-cloth, and radially-arranged chambers provided with doors E, adapted to register with a feed-opening, *g*, formed in said box, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

FRANCIS M. IRONMONGER.

Witnesses:

CHARLES I. MALONE,
NEWBOULD B. SEATON.